



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,222	07/24/2006	Mitsuyuki Fujisawa	JFE-06-1205	8264
35811 7590 10/16/2009 IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				
EXAMINER VELASQUEZ, VANESSA T				
ART UNIT 1793		PAPER NUMBER		
NOTIFICATION DATE 10/16/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary

Application No.

10/587,222

Applicant(s)

FUJISAWA ET AL.

Examiner

Vanessa Velasquez

Art Unit

1793

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 2 and 17 are canceled. Claims 1, 3-16, and 18-20 are pending and presented for examination on the merits.

Claim Objections

1. Claims 1 and 12-15 are objected to because of a typographical error. There is a stray open quotation mark (before the symbol $Md(\gamma)$) without a corresponding end quotation mark in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 3, 4, 6-12, 16, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alfonsson et al. (US 2003/0172999 A1) in view of Durand-Charre (*Microstructure of Steels and Cast Irons*). The claims remain rejected for the same reasons described in the Office action dated December 31, 2008.

Regarding the amended portion of claims 1 and 12, it has been established that "[w]hen the structure recited in the reference is substantially identical to that of the claims, claimed properties of functions are presumed to be inherent" (MPEP § 2112.01).

In the instant case, the chemical composition and microstructure of the stainless steel of Alfonsson et al. overlap the claimed chemical composition and microstructure.

Therefore, the stainless steel of the prior art would be expected to possess any properties, such as an elongation of about 48% or larger, as claimed.

Still regarding the amended portion of claims 1 and 12, Alfonsson et al. in view of Durand-Charre do not teach the claimed equation. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art (*In re Cooper and Foley*, 1943 C.D. 357, 553 O.G. 177, 57 USPQ 117; *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77; and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75). In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art (*In re Austin, et al.*, 149 USPQ 685, 688).

Further regarding the amended portion of claims 1 and 12, Alfonsson et al. in view of Durand-Charre are silent as to the phase of the Si, Mn, Cr, Mo, Ni, Cu. However, it should be noted that the manufacturing operations carried out in to produce the steels of Alfonsson et al. are cast from a melt and hot-rolled (para. [0055]). This is not unlike the casting and hot-rolling disclosed by the instant specification (para. [0083]). Thus, one of ordinary skill in the art would expect at least a part of the Si, Mn, Cr, Mo, Ni, and Cu components to be in the γ (austenite) phase in the steel of Alfonsson et al. See MPEP § 2112.01.

2. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alfonsso et al. (US 2003/0172999 A1). The claims remain rejected for the same reasons described in the Office action dated December 31, 2008.

Regarding the amended portion of claims 14 and 15, it has been established that "[w]hen the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent" (MPEP § 2112.01). In the instant case, the chemical composition and microstructure of the stainless steel of Alfonsso et al. overlap the claimed chemical composition and microstructure. Therefore, the stainless steel of the prior art would be expected to possess any properties, such as an elongation of about 48% or larger, as claimed.

Still regarding the amended portion of claims 14 and 15, Alfonsso et al. do not teach the claimed equation. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art (*In re Cooper and Foley*, 1943 C.D. 357, 553 O.G. 177, 57 USPQ 117; *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77; and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75). In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art (*In re Austin, et al.*, 149 USPQ 685, 688).

Further regarding the amended portion of claims 14 and 15, Alfonsso et al. are silent as to the phase of the Si, Mn, Cr, Mo, Ni, and Cu. However, it should be noted that the manufacturing operations carried out in to produce the steels of Alfonsso et al. are cast from a melt and hot-rolled (para. [0055]). This is not unlike the casting and hot-

rolling disclosed by the instant specification (para. [0083]). Thus, one of ordinary skill in the art would expect at least a part of the Si, Mn, Cr, Mo, Ni, and Cu components to be in the γ (austenite) phase in the steel of Alfnsson et al. See MPEP § 2112.01.

3. Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (JP 09-209092, English abstract and machine translation) in view of Durand-Charre (*Microstructure of Steels and Cast Irons*). The claims remain rejected for the same reasons described in the Office action dated December 31, 2008.

Regarding the amended portion of claim 1, it has been established that "[w]hen the structure recited in the reference is substantially identical to that of the claims, claimed properties of functions are presumed to be inherent" (MPEP § 2112.01). In the instant case, the chemical composition and microstructure of the stainless steel of Matsui et al. overlap the claimed chemical composition and microstructure. Therefore, the stainless steel of the prior art would be expected to possess any properties, such as an elongation of about 48% or larger, as claimed.

Still regarding the amended portion of claim 1, Matsui et al. in view of Durand-Charre do not teach the claimed equation. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art (*In re Cooper and Foley*, 1943 C.D. 357, 553 O.G. 177, 57 USPQ 117; *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77; and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75). In the absence of evidence to the contrary, the selection of the

proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art (*In re Austin, et al.*, 149 USPQ 685, 688).

Further regarding the amended portion of claim 1, Matsui et al. in view of Durand-Charre are silent as to the phase of the Si, Mn, Cr, Mo, Ni, and Cu. However, the uniformity of the distribution of the elements in the steel is taught implicitly by Matsui et al., as the steel mouthpieces are cast from a molten mixture (para. [0021]). The uniform distribution among the entire steel means that components such as Si, Mn, Cr, Mo, Ni, and Cu reside in all parts of the steel, including the ferritic and austenitic phases. Therefore, at least a portion of Si, Mn, Cr, Mo, Ni, and Cu reside in the austenitic (γ) phase of the steel.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui et al. (JP 09-209092, English abstract and machine translation). The claims remain rejected for the same reasons described in the Office action dated December 31, 2008.

Regarding the amended portion of claim 13, it has been established that "[w]hen the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent" (MPEP § 2112.01). In the instant case, the chemical composition and microstructure of the stainless steel of Matsui et al. overlap the claimed chemical composition and microstructure. Therefore, the stainless steel of the prior art would be expected to possess any properties, such as an elongation of about 48% or larger, as claimed.

Still regarding the amended portion of claim 13, Matsui et al. do not teach the claimed equation. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art (*In re Cooper and Foley*, 1943 C.D. 357, 553 O.G. 177, 57 USPQ 117; *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77; and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75). In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art (*In re Austin, et al.*, 149 USPQ 685, 688).

Further regarding the amended portion of claim 13, Matsui et al. are silent as to the phase of the Si, Mn, Cr, Mo, Ni, and Cu. However, the uniformity of the distribution of the elements in the steel is taught implicitly by Matsui et al., as the steel mouthpieces are cast from a molten mixture (para. [0021]). The uniform distribution among the entire steel means that components such as Si, Mn, Cr, Mo, Ni, and Cu reside in all parts of the steel, including the ferritic and austenitic phases. Therefore, at least a portion of Si, Mn, Cr, Mo, Ni, and Cu reside in the austenitic (γ) phase of the steel.

Response to Arguments

5. Applicant's arguments filed June 12, 2009 have been fully considered but they are not persuasive.

Applicant primarily argues that the steels of Alfonsso and Matsui cannot be the same as that of the claimed invention because the steels were not manufactured the same way. In response, there are often multiple methods to make the same product.

This is not only a fact, but it is admitted in Applicant's own specification with respect to producing the steels of the present invention (paragraph [0082]). Applicant has yet to provide objective evidence showing that the steels of Alfonsson et al. and Matsui et al. possess properties that are different from the claimed invention. See MPEP § 716.01 and 716.02.

Conclusion

6. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vanessa Velasquez whose telephone number is 571-

270-3587. The examiner can normally be reached on Monday-Friday 9:00 AM-6:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached at 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

/Vanessa Velasquez/
Examiner, Art Unit 1793